

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|-----------------|---|------------------|---------|---------------------|
| L1 | 160 | (549/413).CCLS. | US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB | OR | OFF | 2007/09/03 11:09 |
| L2 | 389 | (552/540).CCLS. | US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB | OR | OFF | 2007/09/03 11:09 |
| L3 | 6 | L1 AND L2 | US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB | OR | ON | 2007/09/03 11:09 |

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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0.21

FILE 'CAPLUS' ENTERED AT 11:30:07 ON 03 SEP 2007

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=> S PLANT(L) STEROLS

851966 PLANT

464984 PLANTS

1044635 PLANT

(PLANT OR PLANTS)

24654 STEROLS

L1 2982 PLANT(L) STEROLS

=> S L1 AND TOCOPHEROL

32107 TOCOPHEROL

10033 TOCOPHEROLS

35078 TOCOPHEROL

(TOCOPHEROL OR TOCOPHEROLS)

L2 139 L1 AND TOCOPHEROL

=> S L2 AND DEODORIZATION

19504 DEODORIZATION

9 DEODORIZATIONS

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19505 DEODORIZATION

(DEODORIZATION OR DEODORIZATIONS)

L3

7 L2 AND DEODORIZATION

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L3 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:923159 CAPLUS
 DOCUMENT NUMBER: 145:504276
 TITLE: Supercritical fluid extraction of minor lipids from pretreated sunflower oil deodorizer distillates
 AUTHOR(S): Vazquez, Luis; Torres, Carlos F.; Fornari, Tiziana; Grigelmo, Nuria; Senorans, Francisco J.; Reglero, Guillermo
 CORPORATE SOURCE: Sección Departamental de Ciencias de la Alimentación, Facultad de Ciencias, Universidad Autónoma de Madrid, Madrid, Spain
 SOURCE: European Journal of Lipid Science and Technology (2006), 108(8), 659-665
 CODEN: EJLTFF; ISSN: 1438-7697
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The recovery of minor lipid compds. (tocopherols and phytosterols) from sunflower oil deodorizer distillates using countercurrent supercrit. carbon dioxide extraction has been studied.
 Since the raw material employed contains large amts. of triacylglycerols and free fatty acids, chemical transformation of these compds. into their corresponding fatty acid Et esters was previously carried out, to favor the concentration of minor lipids in the raffinate product. Extns. of the original and pretreated raw material were carried out in a pilot-scale plant at 65 °C, with pressures ranging from 15 to 23 MPa and solvent-to-feed ratios from 15 to 30. The influence of the feed composition in the extraction process was analyzed by comparison of the tocopherol and phytosterol yields and enrichment factors obtained in each case. The chemical transformation of the deodorizer distillate composition significantly enhances the concentration of minor lipids in the raffinate product. Addnl., the reaction step produced a solid phase, mainly consisting of sterols, which was isolated from the liquid product.
 REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L3 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:962899 CAPLUS
 DOCUMENT NUMBER: 143:234975
 TITLE: Hair dye compositions containing plant-derived lanolin
 INVENTOR(S): substitutes
 Watanabe, Katsuhiko; Furusawa, Toshimitsu; Kuriyama, Hiroki; Suganuma, Hiroyuki
 PATENT ASSIGNEE(S): Sanei Kagaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JXKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2005232152 | A | 20050902 | JP 2004-167833 | 20040510 |
| PRIORITY APPLN. INFO.: | | | JP 2003-194638 | A 20030605 |
| | | | JP 2004-43656 | A 20040121 |

 AB The invention relates to a hair dye composition characterized by containing plant-derived lanolin substitute, especially obtained by distillation, fatty acid esterification, decoloration, and deodorization of a byproduct of tocopherol extraction from a plant deodorized distillate, wherein the plant-derived lanolin substitute provides excellent water-holding property, moisturizing, and emollient effect to hair. A hair dye composition further containing plant oil, sucrose fatty acid ester, liquid fatty acid, hydrogenated plant oil, higher alc. and/or surfactant is also disclosed. A paste oil (sterol/sterol fatty acid ester/hydrocarbon = 1.7/61/7.3 %) was prepared from a byproduct of soybean oil deodorization. The paste oil was mixed with other ingredients to make a hair dye composition

L3 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:52812 CAPLUS
 DOCUMENT NUMBER: 142:468833
 TITLE: Simulation of continuous deodorizers: Effects on product streams
 AUTHOR(S): Ceriani, Roberto; Meirelles, Antonio J. A.
 CORPORATE SOURCE: LASEFI (Physical Separation Laboratory), Food Engineering Department, State University of Campinas (UNICAMP), Cidade Universitaria Zeferino Vaz, Sao Paulo, 13083-970, Brazil
 SOURCE: Journal of the American Oil Chemists' Society (2004), 81(11), 1059-1069
 CODEN: JOACAT; ISSN: 0003-021X
 PUBLISHER: AOCS Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB This work deals with the simulation of deodorization, one important process in the edible oil industry related to the removal of odoriferous compds. The deodorizer was modeled as a multicomponent stripping-column in cross-flow and countercurrent flow. The impact of processing parameters on the quality of the product streams was analyzed. The deodorization of soybean and canola oils (plant scale) and wheat germ oil (lab-scale) was studied under typical ranges of temperature, stripping steam rate, and pressure. Their entire compns. were considered within the simulations, including acylglycerols, FFA, and other key components such as tocopherols and sterols. The deodorization results were analyzed in terms of retention of tocopherol and sitosterol and of neutral oil loss to the distillate. The deodorizer modeling considered Murphree efficiencies and entrainment for each plate. A case study, i.e., the deodorization of soybean oil, illustrated the applicability of our modeling.
 REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L3 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:276712 CAPLUS
 DOCUMENT NUMBER: 141:173238
 TITLE: Tocopherol composition of deodorization distillates and their antioxidative activity
 AUTHOR(S): Nogala-Kalucka, Malgorzata; Korczak, Jozef; Wagner, Karl-Heinz; Elmadfa, Ibrahim
 CORPORATE SOURCE: Department of Biochemistry and Food Analysis, Agricultural University, Poznan, PL-61623, Pol.
 SOURCE: Nahrung (2004), 48(1), 34-37
 CODEN: NAHRAR; ISSN: 0027-769X
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB During the last stage of plant oil refining, deodorization distillates containing very important biol. substances such as tocopherols, sterols, terpenoids or hydrocarbons are formed as byproducts. This study aimed at evaluating the content and antioxidant capacity of tocopherol concs. from deodorization distillates obtained after the refining of rapeseed, soybean and sunflower oil. The majority of the matrix substances were eliminated from deodorization distillates by freezing with an acetone solution at -70°C. The tocopherol concs. obtained in this way contained approx. 5-fold more tocopherols than the quantity in condensates after deodorization. Antioxidant activity was investigated by observing the peroxide value at 25°C and using the Oxidograph test. The test medium was lard enriched with the tocopherol concs. of the three plant oils vs. single, synthetic α -, γ - and δ - tocopherols (-T), which served for comparison. In these model systems, all investigated tocopherol concs. exhibited antioxidant capacity. Their antioxidant effect was significantly lower than that of single δ -T and γ -T, but significantly higher than α -T. The results prove that natural tocopherol concs. obtained from plant oils are valuable food antioxidants and they also increase the biol. and nutritional value of food especially when administered to animal fats or food of animal origin. Tocopherol concs. can fully replace synthetic antioxidants that were used thus far.
 REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

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L3 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:2987 CAPLUS
 DOCUMENT NUMBER: 140:58755
 TITLE: Process for recovery of plant sterols from by-product of vegetable oil refining
 INVENTOR(S): Csappon, Tibor; Kemeny, Zsolt; Kovari, Endre; Recseg, Katalin
 PATENT ASSIGNEE(S): Cereol Noevenyolajipari Rt., Hung.
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PINXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2004000979 | A1 | 20031231 | WO 2002-HU62 | 20020702 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG | | | |
| HU 200202024 | A2 | 20040329 | HU 2002-2024 | 20020619 |
| CA 2501963 | A1 | 20031231 | CA 2002-2501963 | 20020702 |
| AU 2002321664 | A1 | 20040106 | AU 2002-321664 | 20020702 |
| BR 2002015782 | A | 20050301 | BR 2002-15782 | 20020702 |
| EP 1520003 | A1 | 20050406 | EP 2002-755376 | 20020702 |
| EP 1520003 | B1 | 20070425 | | |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| JP 2005530018 | T | 20051006 | JP 2004-515075 | 20020702 |
| CN 1732251 | A | 20060208 | CN 2002-829395 | 20020702 |
| MX 2004PA12787 | A | 20050920 | MX 2004-PA12787 | 20041216 |
| IN 2005DN00164 | A | 20060609 | IN 2005-DN164 | 20050117 |
| US 2006135794 | A1 | 20060622 | US 2005-519769 | 20050624 |
| PRIORITY APPLN. INFO.: | | | HU 2002-2024 | A 20020619 |
| | | | WO 2002-HU62 | W 20020702 |

AB The process for recovery of plant sterols and tocopherols from deodorization distillates formed during chemical or phys. refining of vegetable oils consists of the following steps:
 free fatty acids are removed from the deodorization distillate by vacuum distillation or by continuation solvent saponification, after the removal of
 free fatty acids, the received material is reacted with an aromatic carboxylic acid anhydride at a temperature of 50-150° C. under reduced pressure, after the treatment with anhydride, tocopherols are

L3 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:18905 CAPLUS
 DOCUMENT NUMBER: 136:403423
 TITLE: The utilization of soybean distillation in Mexico
 AUTHOR(S): Soto, Ricardo
 CORPORATE SOURCE: Industrias Petrotec de Mexico, Estado de Mexico, Mexico, 55400, Mex.
 SOURCE: Proceedings of the World Conference on Oilseed Processing Utilization, Cancun, Mexico, Nov. 12-17, 2000 (2001), Meeting Date 2000, 183-187. Editor(s): Wilson, Richard F. AOCS Press: Champaign, Ill.
 CODEN: 69CDR5
 DOCUMENT TYPE: Conference/General Review
 LANGUAGE: English

AB A review on soybean distillate and its utilization in Mexico. Deodorization is generally the last step in the process of traditional oil refining, and is done to improve taste, odor, color, and stability of the oil. In this process, many volatile materials are removed from the oil and recovered as a valuable byproduct known as distillate. This distillate is a mixture of free fatty acids, tocopherols, sterols, aldehydes, and ketones, among others. Actually, in Mexico much of the soybean distillate produced is exported to tocopherol producers. The soybean distillate produced in Mexico contains tocopherols and sterols considered as value-added materials. These products have many applications due to the ever-increasing popularity of the use of natural products. Tocopherols are used as natural antioxidants and as a source of natural vitamin E, whereas sterols are used in the manufacture of pharmaceuticals. Recently, much research has been done to develop suitable methods to isolate such materials. The content of these value-added materials in the soybean distillate can vary, depending on the deodorizing process conditions, handling, and storage. Good practices of deodorization, handling, and storage are very important as well for producing a distillate high in contents of tocopherols and sterols. In Mexico, successful tocopherol and sterol concentration processes have been achieved at a pilot-plant scale. The acquisition of equipment to extract the materials of interest from soybean distillate on a large scale requires a great investment, but it could be feasible if the markets were opened and exploited correctly.
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L3 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 removed from the mixt., and cryst. free sterols are recovered from the distn. residue contg. sterol esters, di- and triglycerides by transesterification.
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L3 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:77397 CAPLUS
 DOCUMENT NUMBER: 102:77397
 TITLE: Utilization of deodorizer distillate from refining of soybean oil. (I). Constituents of deodorizer distillate and preparation of vitamin E concentrate
 AUTHOR(S): Tsien, Hsu Yang; Chiu, Shiow Ying
 CORPORATE SOURCE: Dep. Food Sci., Natl. Chung Hsing Univ., Taichung, Taiwan
 SOURCE: Kexue Fazhan Yuekan (1984), 11(12-2), 1342-56
 CODEN: KHFKDF; ISSN: 0250-1651
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB Total, α , β , γ , and δ - tocopherols of the deodorizer distillates obtained from several soybean oil plants in Taiwan were investigated. The optimum conditions for vitamin E [1406-18-4] concentrate preparation, such as methylation (esterification) and mol. distillation were also investigated. The major components of deodorizer distillate were free fatty acids (43-45%), triglycerides (21-23%), and sterols (21-22%). The content of total tocopherols is 10-12% comprising β - tocopherol (58-60%) and δ - tocopherol [119-13-1] (31-32%). Gas chromatog. anal. showed that the fatty acids composition of the deodorizer distillate was similar to that of soybean oil. They are both rich in linoleic acid (approx. 50%), oleic acid (22%), and palmitic acid (16%). These similarities may be due to the use of soybean oil in deodorizer distillate recovery during the refining process. After methylation and mol. distillation, vitamin E concs. with tocopherol content of 40-47% were obtained. Among these, the β and δ - tocopherol were the major constituents. All these preps. showed good antioxidant activities.

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COST IN U.S. DOLLARS

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FULL ESTIMATED COST

30.20

30.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

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